IN THE CLAIMS

The following is a complete listing of revised claims with a status identifier in parenthesis.

LISTING OF CLAIMS

1.   (Original)   A method for coordinating transmissions of access points in a wireless local area network comprising the steps of:

estimating a number of slots for each access point associated with a contention free period (CFP);

generating estimated slot sequences, slot assignments and a transmission frequency for each access point based on the estimated number of slots and an interference graph associated with every access point;

determining a total number of slots used in the estimated slot assignments;

comparing the total number of slots to an available number of slots;

adjusting a slot-to-user ratio of each access point if the total number of slots does not equal the available number of slots; and

assigning each access point a number of slots and a slot sequence based on the estimated slot assignments and slot sequences and assigning each access point a transmission frequency when the total number of slots equals the available number of slots.

2.   (Original)   The method as in claim 1 wherein the adjustment step further comprises the steps of:

increasing the slot-to-user ratio of each access point when the total number of slots is less than the available number of slots; and

decreasing the slot-to-user ratio of each access point when the total number of slots is greater than the available number of slots.

3.   (Original)   The method as in claim 1 further comprising the steps of:

estimating a next number of slots for each access point based on each access point's adjusted slot-to-user ratio; and

generating next, estimated slot sequences, slot assignments and a transmission frequency for each access point based on the next number of slots and the interference graph.

4.   (Original)   The method as in claim 1 wherein the generation step further comprises generating the estimated slot sequences, slot assignments and frequencies such that no two interfering access points are assigned the same transmission frequency during a given slot and such that a total number of assigned slots is minimized.

5.   (Original)   The method as in claim 1 when the adjusting step further comprises the step of adjusting the slot-to-user ratio of each access point until said ratios substantially equal a maximum, lower bound of all of the slot-to-user ratios.

6.   (Original)   The method as in claim 1 wherein the method comprises a 4-approximation technique.

7.   (Original)   A system for coordinating transmissions of access points in a wireless local area network operable to:

estimate a number of slots for each access point associated with a contention-free period (CFP);

generate estimated slot sequences, slot assignments and a transmission frequency for each access point based on the estimated number of slots and an interference graph associated with every access point;

determine a total number of slots used in the estimated slot assignments;

compare the total number of slots to an available number of slots;

adjust a slot-to-user ratio of each access point if the total number of slots does not equal the available number of slots; and

assign each access point a number of slots and a slot sequence based on the estimated slot assignments and slot sequences and assigning each access point a transmission frequency when the total number of slots equals the available number of slots.

8.   (Original)   The system as in claim 7 further operable to:

increase the slot-to-user ratio of each access point when the total number of slots is less than the available number of slots; and

decrease the slot-to-user ratio of each access point when the total number of slots is greater than the available number of slots.

9.   (Original)   The system as in claim 7 further operable to:

estimate a next number of slots for each access point based on each access point's adjusted slot-to-user ratio; and

generate next, estimated slot sequences, slot assignments and a transmission frequency for each access point based on the next number of slots and the interference graph.

10.   (Original)   The system as in claim 7 further operable to:

generate the estimated slot sequences, slot assignments and frequencies such that no two interfering access points are assigned the same transmission frequency during a given slot and such that a total number of assigned slots is minimized.

11. (Original) The system as in claim 7 further operable to:

adjust the slot-to-user ratio of each access point until said ratios substantially equal a maximum, lower bound of all of the slot-to-user ratios.

12. (Original) The system as in claim 7 wherein the system is operable to coordinate the transmissions using a 4-approximation technique.

13. (Original) A system for coordinating transmissions of access points in a wireless local area network comprising:

means for estimating a number of slots for each access point associated with a contention free period (CFP);

means for generating estimated slot sequences, slot assignments and a transmission frequency for each access point based on the estimated number of slots and an interference graph associated with every access point;

means for determining a total number of slots used in the estimated slot assignments;

means for comparing the total number of slots to an available number of slots;

means for adjusting a slot-to-user ratio of each access point if the total number of slots does not equal the available number of slots; and

means for assigning each access point a number of slots and a slot sequence based on the estimated slot assignments and slot sequences and assigning each access point a transmission frequency when the total number of slots equals the available number of slots.

14. (Original) The system as in claim 13 further comprising:

means for increasing the slot-to-user ratio of each access point when the total number of slots is less than the available number of slots; and

means for decreasing the slot-to-user ratio of each access point when the total number of slots is greater than the available number of slots.

15. (Original) The system as in claim 13 further comprising:

means for estimating a next number of slots for each access point based on each access point's adjusted slot-to-user ratio; and

means for generating next, estimated slot sequences, slot assignments and a transmission frequency for each access point based on the next number of slots and the interference graph.

16. (Original) The system as in claim 13 further comprising:

means for generating the estimated slot sequences, slot assignments and frequencies such that no two interfering access points are assigned the same transmission frequency during a given slot and such that a total number of assigned slots is minimized.

17. (Original) The system as in claim 13 further comprising:

means for adjusting the slot-to-user ratio of each access point until said ratios substantially equal a maximum, lower bound of all of the slot-to-user ratios.